PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of:

Applicant:	Kamvysselis et al.	:		
		:		
Serial No.:	09/891,143	:	Examiner:	Tang, Kenneth
		:		
Filed:	June 25, 2001	:	Art Unit:	2195
		:		
For:	**MULTIPLE JOBS PER DEVICE ON RA**	:	Atty. Docket:	EMS-01701

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Name: Bonny Rogers

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Sir:

Applicant hereby submits the originally-signed Appeal Brief with Certificate of Mailing (in triplicate) and postcard receipt for the above-referenced patent application. Please charge the required filing fee of $500.00 to **Deposit Account No. 050889.**

Although we believe that we have appropriately provided for any fees due in connection with this submission, the Commissioner is authorized to credit any overpayment or charge any deficiencies to/from our **Deposit Account No. 050889.** Two originally-executed copies of this form are being submitted.

Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 508-898-8603.

Respectfully submitted,
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<u>October 27, 2006</u>
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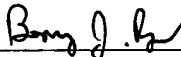Phone: (508) 898-8601
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Bonny J. Rogers

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Application Serial No.: 09/891,143
Filed: June 25, 2001

Appellants/Applicants: Kamvysselis, et al.

Title: MULTIPLE JOBS PER DEVICE ON RA

Appeal from a decision of the Primary Examiner
dated March 28, 2006

Atty. Docket: EMS-01701

1

REAL PARTY IN INTEREST

The above-identified application is assigned to EMC Corporation by virtue of an Assignment recorded by the U.S. Patent and Trademark Office on August 27, 2001, at Reel 012104, Frame 0640.

RELATED APPEALS AND INTERFERENCES

Appellants are not aware of any related appeals and/or interferences.

STATUS OF CLAIMS

This is an appeal from a decision of the Primary Examiner in the Final Office Action dated March 28, 2006 (hereinafter "Final Office Action"), finally rejecting Claims 1-6, 17-22 and 27 in the above-identified patent application under 35 U.S.C. 103(a). No claim has been allowed. A Notice of Appeal was submitted on August 28, 2006.

STATUS OF AMENDMENTS

Appellants filed a Response to a Final Office Action on June 6, 2006, in which no claim amendments were made. Therefore, no recent amendments have been proposed and all prior amendments proposed by the Appellants throughout prosecution of this case have been entered. The claims involved in this Appeal are set forth in the attached Claims Appendix.

SUMMARY OF CLAIMED SUBJECT MATTER

The present claimed invention is for a system in which multiple job (task) records associated with a particular device are made serviceable by other entities. This feature of the present claimed invention allows operations for a device to be handled more quickly and efficiently by allowing multiple entities (including entities that are relatively idle) to assist in servicing jobs. For example, in the case of a background copy operation, the associated jobs may be handled by multiple entities, thus allowing the background copy operation to complete sooner.

Claim 1 is directed to a method of providing multiple jobs for a first communication device (24 in figure 1) that exchanges data with a second communication device (26 in figure 1). The method is recited as including providing a plurality of device records (230 in figure 9), where each of the device records corresponds to the first communication device; providing a plurality of job records (232 in figure 10, active job and job count and 240 in figure 11) for at least one of the device records, where each of the job records contains at least some information that is also provided in the corresponding one of the device records (e.g., constants field described on page 25, lines 9-11) and where at least one of the job records corresponds to tasks performed in connection with exchanging data between the first communication device and the second communication device (e.g., track ID table of job record 240 of figure 11; see also page 29, lines 12-14), and linking the job records and the corresponding device record so that any one of the job records may be accessed by first accessing the corresponding one of the device records (forward pointer and backward pointer of figure 11 and active job pointer of figure 10; see also figure 12), where jobs corresponding

3

to the job records associated with a particular device record are serviceable by different entities (page 27, lines 7-9). Claims 2-6 and 27 depend from Claim 1.

Claim 17 recites computer software that provides multiple jobs for a first communication device (24 in figure 1) that exchanges data with a second communication device (26 in figure 1). The software is recited as including executable code that provides a plurality of device records (230 in figure 9), where each of the device records corresponds to the first communication device; executable code that provides a plurality of job records (232 in figure 10, active job and job count and 240 in figure 11) for at least one of the device records, where each of the job records contains at least some information that is also provided in the corresponding one of the device records (e.g., constants field described on page 25, lines 9-11) and where at least one of the job records corresponds to tasks performed in connection with exchanging data between the first communication device and the second communication device (e.g., track ID table of job record 240 of figure 11; see also page 29, lines 12-14), and executable code that links the job records and the corresponding device record so that any one of the job records may be accessed by first accessing the corresponding one of the device records (forward pointer and backward pointer of figure 11 and active job pointer of figure 10; see also figure 12), where jobs corresponding to the job records associated with a particular device record are serviceable by different entities (page 27, lines 7-9). Claims 18-22 depend from Claim 17.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I.   Claims 1, 5-6, 17, 21-22, and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Poublan et al. (U.S. Patent No. 4,104,718, hereinafter referred to as "Poublan") in view of Brackett et al. (U.S. Patent No. 6,519,632, hereinafter referred to as "Brackett") and further in view of U.S. Patent No. 5,900,871 to Atkin et al. (hereinafter "Atkin").

II.   Claims 2-4 and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over Poublan in view of Brackett and further in view of James (U.S. Patent No. 6,035,376, hereinafter referred to as "James")

ARGUMENT

I.   **The Poublan, Brackett, and Atkin references may not be used to establish obviousness of Claims 1, 5-6, 17, 21-22 and 27 under 35 U.S.C. §103(a) and the Poublan, Brackett, (Atkin), and James references may not be used to establish obviousness of Claims 2-4 and 18-20 under 35 U.S.C. §103(a).**

A.   **Obviousness Standard.**

In determining whether or not there is a proper case of obviousness, it is necessary to establish whether one of ordinary skill in the art would, having the references before him, be motivated to make the proposed combination, modification or substitution so as to yield all elements of a claimed invention. *In re Lintner*, 458 F.2d 1013, 1016 (CCPA, 1972). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is

what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In rejecting claims under 35 U.S.C. §103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985); *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984).

A statement that modifications of the prior art to meet the claimed invention would have been "'well within the ordinary skill of the art at the time the claimed invention was made'" because the references relied upon teach that all aspects of the claimed invention were

6

individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993). See also *In re Kotzab,* 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000). The mere fact that references <u>can</u> be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Where the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991).

Furthermore, if proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). In addition, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

B. **None of the cited references teach, alone or in any combination, the feature recited in independent claims 1 and 17 where jobs corresponding to the job records associated with a particular device record are serviceable by different entities.**

Prior to addressing this point in detail, it may be useful to distinguish between service and serviceable. A single entity may service multiple jobs (tasks) from a plurality of sources. Thus, for example, a computer communication adaptor may transfer data between hundreds or even thousands of devices, in which case the adaptor may be said to *service* the hundreds or even thousands of devices. In contrast, a task or job may be said to be *serviceable* by more than one entity (e.g., more than one RA within a storage device) if more than one entity can do the processing corresponding to the task or job. Of course, only one entity may actually *service* a particular job or task even though the task or job is *serviceable* by more than one entity. It is also worth noting that even if an entity (like a communication adaptor) *services* multiple jobs from different devices, it does logically follow that those jobs are necessarily *serviceable* by more than one entity. For example, it is possible for a single entity (like a communication adaptor) to *service* multiple jobs from multiple sources while at the same time those jobs are *serviceable* by only that entity. As explained in more detail below, the point of Appellants' system is to make jobs (tasks) be *serviceable* by multiple entities, the advantages of which are discussed elsewhere herein and described in the application.

Poublan discloses providing multiple jobs for a device associated with a communication device. Poublan does not teach that the job records contain information that

is also provided in the corresponding one of the device records and exchanging data between the two communication devices. This is confirmed at item 3 of the Final Office Action,

Brackett teaches having job records containing information that is also provided in the corresponding one of the device records for a system that communicates with multiple remotely located storage or printing devices as set forth at column 5, lines 30-33, column 8, lines 5-16, Fig. 2, Fig. 6 and 8. This is confirmed at item 3 in the Final Office Action.

Atkins discloses an input/output adaptor for connecting disk units, for example. Atkins also discloses another entity such as a communication adaptor that transfers data and links the device with hundreds or even thousands of similar devices such as remote printers, remote services, or remote storage units. This is also confirmed in the Final Office Action.

Appellants submit that neither Poublan, nor Brackett, nor Atkins, nor any combination thereof show, teach, or suggest the feature recited in the claims where jobs corresponding to the job records associated with a particular device record are serviceable by different entities. As mentioned in the specification, this feature facilitates operations for a device being handled more quickly and efficiently by allowing multiple entities (including entities that are relatively idle) to assist in servicing jobs. For example, in the case of a background copy operation, the associated jobs may be handled by multiple entities, thus allowing the background copy operation to complete sooner.

In contrast, none of the cited reference appears to address or even recognize this problem solved by the present claimed invention. Poublan does not teach that the job records

contain information that is also provided in the corresponding one of the device records, and thus there does not appear to be any mechanism in Poublan for having an entity other than the device itself service job records for the device. Furthermore, even if Brackett teaches having job records containing information that is also provided in the corresponding one of the device records for a system that communicates with multiple remotely located storage or printing devices, there still is no teaching whatsoever in Brackett of having the job records of a particular device being able to be serviced by multiple entities. Note that, as discussed in detail above, having the job records serviced *by* multiple entities (serviceable) is different and distinguishable from having the job records relate to communication by the device *to* multiple entities (service).

In addition, Poublan and Brackett are silent with respect to jobs corresponding to the job records associated with a particular device record being serviceable by different entities, as recited in the claims. This is confirmed on page 3 of the Office Action. Appellants respectfully submit that Atkins does not overcome this deficiency of Poublan and Brackett. In the first place, even though Atkins teaches use of a communication adaptor (34), Atkins does not appear to teach any job records for servicing the adaptor. It is not clear how Akins can address the deficiencies of the combination of Poublan and Brackett (missing the recited jobs serviceable by more than one entity), without disclosing jobs at all. If the Final Office Action is correct and Poublan and Brackett do not teach the recited jobs serviceable by more than one entity, and Akins does not at all teach any jobs (or equivalent), it is not clear how the combination of Poublan and Brackett and Akins could provide this feature of the present claimed invention.

10

In addition, Atkins discloses only one processor (10) and thus, even if Atkins disclosed jobs as recited in the Appellants' claims (which Appellants dispute), Atkins discloses only the processor (10) that could possibly service those jobs. Thus, in contrast with the present claims that recite the jobs being serviceable by different entities, Atkins discloses only a single entity that could possibly service any jobs. Furthermore, even though Atkins mentions in passing that the computer system has "at least one processor", Atkins never otherwise discusses more than processor and certainly never mentions how more than one processor could service jobs or how the jobs could be made serviceable by more than one processor.

As to the rejection of Claims 2-4 and 18-20 under 35 U.S.C. § 103(a) as being unpatentable over Poublan in view of Brackett and further in view of James (U.S. Patent No. 6,035,376, hereinafter referred to as "James"), Appellants note that since claims 2-4 depend from independent claim 1 and claims 18-20 depend from independent claim 17, then it is assumed that this rejection includes Atkins, which was used to reject claims 1 and 17.
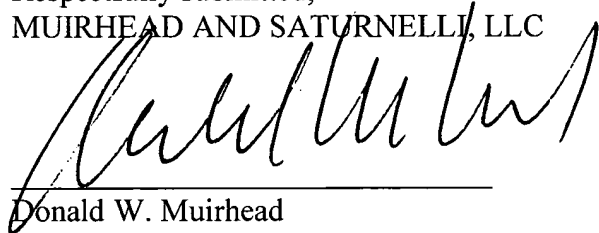
James discloses a system for converting between the states of fresh and owned in a multiprocessor computer system comprising a memory line with a structure including a first field for storing a memory state, a second field for storing an address and a third field for storing data. (See Abstract). James relates to a system and method for maintaining cache coherence that is even driven and changes the state of the caches and memories based on the current memory state and a head of a list of corresponding cache entries. (Col. 1, Lines 17-23).

Appellants submit that the deficiencies of Poublan, Brackett, and Atkins with respect to the independent claims 1 and 17, discussed above, are not overcome by the addition of the James reference.

CONCLUSION

In view of the above, it is respectfully requested that the Board reverse all of the Examiner's rejections under 35 U.S.C. 103(a).

Respectfully submitted,
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Date: <u>October 27, 2006</u>

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CLAIMS APPENDIX

The claims on Appeal are as follows:

1. (Previously Presented) A method of providing multiple jobs for a first communication device that exchanges data with a second communication device, comprising:

providing a plurality of device records, wherein each of the device records corresponds to the first communication device;

providing a plurality of job records for at least one of the device records, wherein each of the job records contains at least some information that is also provided in the corresponding one of the device records and wherein at least one of the job records corresponds to tasks performed in connection with exchanging data between the first communication device and the second communication device; and

. linking the job records and the corresponding device record so that any one of the job records may be accessed by first accessing the corresponding one of the device records, wherein jobs corresponding to the job records associated with a particular device record are serviceable by different entities.

2. (Original) A method, according to claim 1, further comprising:

providing one of a plurality of shared pointers in each of the job records and the corresponding one of the device records, wherein all of the shared pointers point to the corresponding one of the device records.

3. (Original) A method, according to claim 1, wherein linking the job records includes providing a forward pointer and a backward pointer for each of the job records.

4. (Original) A method, according to claim 3, wherein linking the job records also includes providing a pointer to one of the job records in the corresponding one of the device records.

5. (Original) A method, according to claim 1, wherein at least one of the device records includes a pointer to one of the job records corresponding to an active job.

6. (Original) A method, according to claim 1, wherein each of the job records includes information not found in other ones of the job records.

7 – 16. (Canceled).

17. (Previously Presented) Computer software that provides multiple jobs for a first communication device that exchanges data with a second communication device, comprising:

executable code that provides a plurality of device records, wherein each of the device records is associated with the first communication device;

executable code that provides a plurality of job records for at least one of the device records, wherein each of the job records contains at least some information that is also provided in the corresponding one of the device records and wherein at least one of the job records corresponds to tasks performed in connection with exchanging data between the first communication device and the second communication device; and

executable code that links the job records and the corresponding device record so that any one of the job records may be accessed by first accessing the corresponding one of the device records, wherein jobs corresponding to the job records associated with a particular device record are serviceable by different entities.

18. (Original) Computer software, according to claim 17, further comprising:

executable code that provides one of a plurality of shared pointers in each of the job records and the corresponding one of the device records, wherein all of the shared pointers point to the corresponding one of the device records.

19. (Original) Computer software, according to claim 17, wherein the executable code that links the job records includes executable code that provides a forward pointer and a backward pointer for each of the job records.

20. (Original) Computer software, according to claim 19, wherein the executable code that links the job records also includes executable code that provides a pointer to one of the job records in the corresponding one of the device records.

21. (Original) Computer software, according to claim 17, wherein at least one of the device records includes a pointer to one of the job records corresponding to an active job.

22. (Original) Computer software, according to claim 17, wherein each of the job records includes information not found in other ones of the job records.

23.-26. (Cancelled)

27. (Previously Presented) The method of Claim 1, wherein the first communication device is included in a remote data storage system which communicates with a local data storage system including the second communication device, a request from said local data storage system using the second communication device causing creation of one of said job records in said remote data storage system.

EVIDENCE APPENDIX

Appellants are not submitting any evidence in support of this Brief.

RELATED PROCEEDINGS APPENDIX

No decisions have been rendered in connection with the related proceedings mentioned above.